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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,503	12/11/2003	Scott A. Flatness	EH-10960 (03-430)	9228
34704 7590 02/27/2007 BACHMAN & LAPOINTE, P.C. 900 CHAPEL STREET SUITE 1201 NEW HAVEN, CT 06510			EXAMINER COCKS, JOSIAH C	
			ART UNIT 3749	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE 3 MONTHS		MAIL DATE 02/27/2007	DELIVERY MODE PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/733,503

Applicant(s)

FLATNESS ET AL.

Examiner

Josiah Cocks

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 10-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date various.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

1. Claims 10-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Applicant timely traversed the restriction (election) requirement in the reply filed on 11/28/2006.

2. Applicant's election with traverse of the invention of Group I in is acknowledged. The traversal is on the ground(s) that though the inventions are distinct and have separate classification, the search groups would largely overlap and thus examination of both inventions would not present an undue burden on the examiner.

This is not found persuasive because as previously noted by the examiner, the inventions have acquired a separate status in the art in view of their different classification. Further, while some overlap in search would occur between the inventions, they do require a different field of search (see MPEP § 808.02). For instance, the examiner notes that at least the apparatus claims would not necessarily require searches in areas related to process involving fluid handling (class 137) and cleaning (class 134).

Accordingly, the requirement is still deemed proper and is therefore made FINAL. Claims 1-9 stand pending for examination, claims 10-13 are withdrawn from consideration.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 2,465,525 to Goddard (“Goddard”).

Goddard discloses in the specification and Figs. 1-13 an invention in the same field of endeavor as applicant’s invention and as described in applicant’s claims 1, 2, and 4.

In particular, in regard to claim 1, Goddard shows an apparatus comprising an elongate combustion conduit (30) extending from an upstream end to a downstream end associated with an aperture in a wall of a vessel (20) and positioned to direct a shockwave toward a surface of the vessel, and a resilient member (either compressions springs 42 or tension spring 124) resiliently restraining the combustion conduit against recoil forces (see col. 3, lines 5-9 and col. 5, lines 53-59).

In regard to the recitation that the apparatus is “for cleaning a surface within a vessel” this is regarded as merely a statement of the intended use of the apparatus. It has been held that if the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of the claimed invention’s limitations, then the preamble is not considered a limitation and is of no significance to claim construction. *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165 (Fed. Cir.

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1999); see also MPEP 2111.02. Further, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See In re Casey, 152 USPQ 235 (CCPA 1967) and In re Otto, 136 USPQ 458, 459 (CCPA 1963). In this case, the device of Goddard would be capable of cleaning an interior surface of the combustion chamber/vessel (20) and thus meets applicant's claim.

In regard to at least claim 2, each of the springs (42 or 124) couple the combustion conduit to the wall (see Figs. 1 and 13).

In regard to at least claim 4, note tension spring (124).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 2,465,525 to Goddard ("Goddard").

Goddard discloses substantially all the limitations of claim 4 (note discussion of this reference above). While Goddard does clearly show that at least springs (42) are coil springs (see col. 3, line 2), Goddard possibly does not disclose that the springs are metal.

However, OFFICIAL NOTICE is taken that coil springs are well understood to be made of metal. Further, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. See *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331 and MPEP 2144.07.

Therefore, selecting metal as the material for the coil spring of Goddard is within the ability of a person of ordinary skill in the art and does not patentably distinguish applicant's invention.

8. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 2,465,525 to Goddard ("Goddard") in view of U.S. Patent No. 5,494,004 to Hunter, Jr. ("Hunter") (cited by applicant).

Goddard discloses substantially all the limitations of claims 5-7 (note discussion of this reference above) with the exception of a plurality of moveable supports that comprise a plurality of trolleys each having wheels engaging a track on a support surface.

Hunter teaches a pulse detonation soot blower producing a pulsed pressure wave (See col. 3, lines 10-14) that is considered to be analogous art to both applicant's invention and Goddard. In Hunter, a combustion conduit (at least 51) is arranged on a plurality of moveable supports (153R and 153F) that include a plurality of trolleys each having wheels (155) that engage a track (157) on a support surface (top of 161).

Therefore, in regard to claims 5-7, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the device of Goddard to incorporate the moveable supporting trolley assembly of Hunter for the desirable purpose of facilitating the advancement of the pulsed detonation device into and out of the openings of the vessel that receives the pulsed pressure wave (see Hunter, at least col. 3, line 34 through col. 4, line 2).

9. Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 2,465,525 to Goddard ("Goddard") in view of U.S. Patent No. 5,031,691 to Boisture ("Boisture").

Goddard discloses substantially all the limitations of claims 5 and 9 (note discussion of this reference above) with the exception of a plurality of moveable supports that comprise a plurality of hangers.

Boisture teaches a lance cleaning system that is considered to be analogous art to both applicant's invention and Goddard. In Boisture, the conduit of a cleaning lance (100, see Fig. 1)

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is mounted to a plurality of support members (300) that are capable of movement and thus moveable. Further, Boisture contemplates that the lance (100) may be supported or hung via a crane, frame or other suitable means to allow for the operation of the lance (see col. 10, lines 14-23). This teaching is considered to meet applicant's recitation of a hanger. Regarding the recitation of multiple hangers, it has been held that the mere duplication of parts has no patentable significance unless a new or unexpected result is produced. See MPEP 2144.04(VI)(B). In this case, the examiner considers that duplication of the hanging supports of Boisture would result in the expected result of duplicate means of support and does not serve to patentably distinguish applicant's invention.

#### ***Allowable Subject Matter***

10. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

11. This action is made non-final. A THREE (3) MONTH shortened statutory period for reply has been set. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.



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12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent Nos. 4,487,576 (Martini), 4,645,542 (Scharton et al.), 4,740,152 (Conrad et al.), 5,082,502 (Lee et al.), and Japanese Patent 2003-269887 are cited to further show the state of the art concerning combustion pulse/detonation devices and soot blowers.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Josiah Cocks whose telephone number is (571) 272-4874. The examiner can normally be reached on M-F 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Rinehart can be reached on (571) 272-4881. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jcc  
February 20, 2007

  
JOSIAH COCKS  
PRIMARY EXAMINER  
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